ABSTRACT

LOW-NOISE BLOCK CONTROLLER WITHIN A SET-TOP BOX

A low-noise block (LNB) control device within a set-top box is disclosed. The LNB control device is capable of controlling modulation of an alternating waveform on a direct current (DC) voltage from a DC power supply to an LNB amplifier. The LNB control device includes a power supply control module, an LNB signaling module and a switch. In response to a power supply feedback signal received from the DC power supply, the power supply control module sends a control signal to the DC power supply. In addition, the LNB signalling module provides a switch control signal and a modulating waveform to the switch. Under the control of switch control signal, the switch selectively sends the modulating waveform to a summing circuit that is located external to the LNB control device. Within the summing circuit, the modulating waveform is added to the DC voltage from the DC power supply.